Image in cardiology

Modified LAMPOON technique

Técnica modificada de LAMPOON

Sílvia González Sucarrats,* Vicenç Serra García, and Gerard Martí Aguasca

Servicio de Cardiología, Hospital Universitario Vall d'Hebron, CIBERCV, Barcelona, Spain

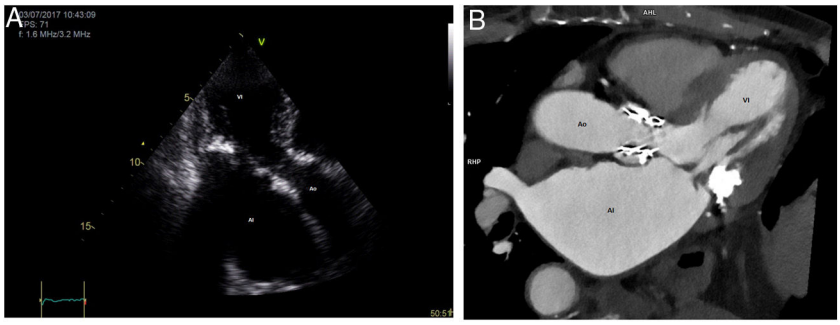

Figure 1.

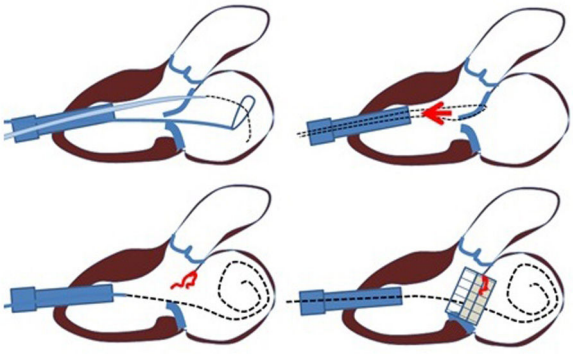

Figure 2.

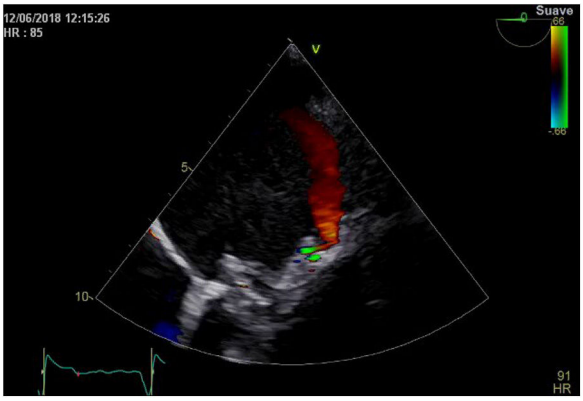

Figure 3.

An 83-year-old woman with severe aortic stenosis and severe mitral regurgitation due to mitral annular calcification underwent transcatheter aortic valve implantation (TAVI) via transfemoral access, but symptoms failed to improve. Transcatheter implantation of a prosthetic valve in the calcified mitral annulus was considered, but echocardiography and computed tomography showed a high risk of left ventricular outflow tract (LVOT) obstruction (figure 1; Ao, aorta; LA, left atrium; LV, left ventricle). It was therefore decided to employ the LAMPOON technique, which consists of the longitudinal laceration of the anterior mitral leaflet to avoid LVOT obstruction. This technique involves retroaortic access for the mitral leaflet laceration; in our case, this access route was limited by the recent TAVI. Our modified technique (figure 2) therefore used transapical access, through which we performed guided puncture of the mitral leaflet centered on the mitral-aortic intervalvular fibrosa, using a Brockenbrough needle and a transseptal introducer. Through this, a 0.014-inch coronary guidewire was advanced into the LA and caught with a snare, via the same apical access, to form a loop. Strong traction on this guidewire resulted in the longitudinal transection of the mitral leaflet. A 29-mm Edwards SAPIEN S3 valve was swiftly implanted under echocardiographic guidance, with a good hemodynamic result. Echocardiographic findings, which included a mild paravalvular leak and no gradient at the LVOT, were maintained at 6 months (figure 3).

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* Corresponding author:
E-mail address: silviagonzalezsucarrats@gmail.com (S. González Sucarrats).
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